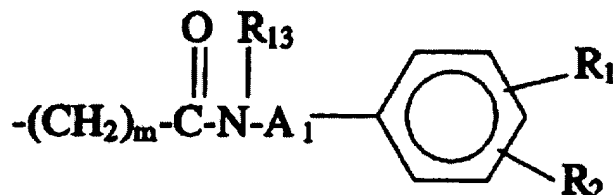


2. (amended) The diagnostic agent of claim 1 wherein said substituted aromatic amide group is of the formula

I



wherein

A<sub>1</sub> is - (CH<sub>2</sub>)<sub>m'</sub> - or a single bond;

(CH<sub>2</sub>)<sub>m</sub> and (CH<sub>2</sub>)<sub>m'</sub> may independently be substituted with alkyl or hydroxyalkyl;

R<sub>1</sub> and R<sub>2</sub> are independently hydrogen,

alkyl, -NO<sub>2</sub>, -NH<sub>2</sub>, -NHC(=S)NHR<sub>12</sub>, -C(=O)NR<sub>3</sub>R<sub>4</sub>, NR<sub>3</sub>COR<sub>9</sub>,

where R<sub>9</sub> is C<sub>4</sub> - C<sub>18</sub> straight or branched chain alkyl or hydroxyalkyl, with the proviso that at least one of R<sub>1</sub> and R<sub>2</sub> must be other than hydrogen;

R<sub>3</sub> and R<sub>4</sub> are independently hydrogen, alkyl, arylalkyl, aryl, alkoxy and hydroxyalkyl;

R<sub>12</sub> is hydrogen, alkyl or hydroxyalkyl;

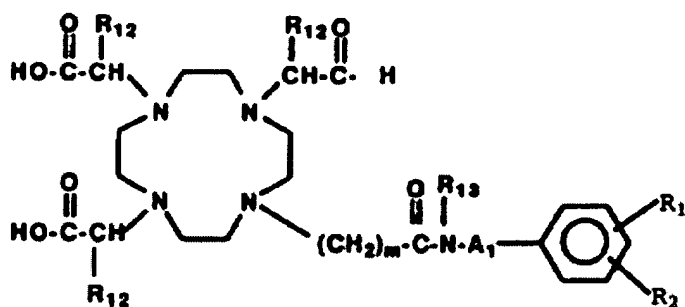
R<sub>13</sub> is hydrogen, alkyl or arylalkyl, aryl, alkoxy or hydroxyalkyl;

m and m' are independently 0 to 5;

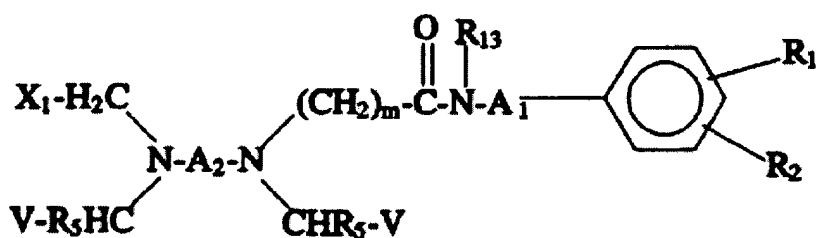
and multimeric forms thereof.

3. (amended) A diagnostic agent of claim 2 wherein said ligand is of the formula

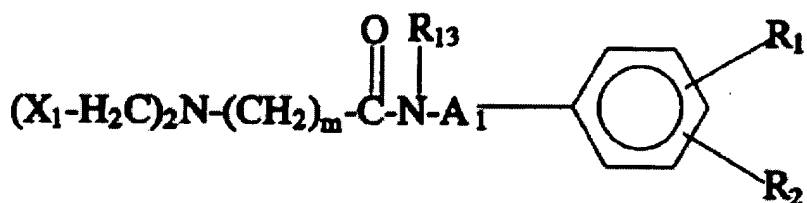
Ia



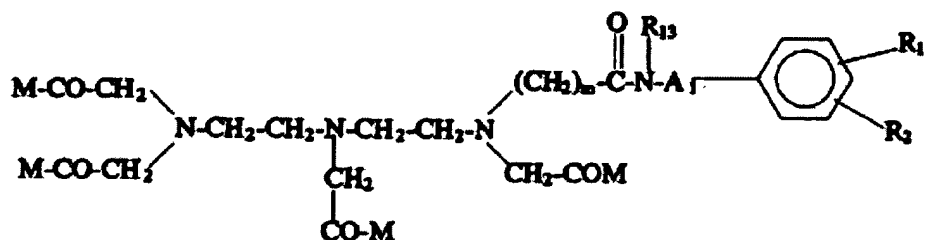
Ib



Ic



Id



wherein m, R<sub>13</sub>, A<sub>1</sub>, R<sub>1</sub>, R<sub>2</sub>, and R<sub>12</sub> are as defined in claim 2 and wherein

$X_1$  is  $-\text{COOY}_1$ ,  $\text{PO}_3\text{HY}_1$  or  $-\text{CONHOY}_1$ ;

$Y_1$  is a hydrogen atom, a metal ion equivalent and/or a physiologically biocompatible cation of an inorganic or organic base or amino acid;

$A_2$  is  $-\text{CHR}_6-\text{CHR}_7-$ ,  $-\text{CH}_2\text{CH}_2(\text{ZCH}_2-\text{CH}_2)_n-$ ,

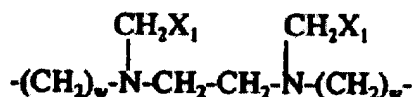
$$\begin{array}{c} \text{N}(\text{CH}_2\text{X}_1)_2 \\ | \\ -\text{CH}_2-\text{CH}-\text{CH}_2 \end{array} \quad \text{or} \quad \begin{array}{c} \text{CH}_2-\text{CH}_2-\text{N}(\text{CH}_2\text{X}_1)_2 \\ | \\ -\text{CH}_2-\text{CH}_2-\text{N}-\text{CH}_2-\text{CH}_2- \end{array}, \text{ wherein } X_1 \text{ is as defined above;}$$
 each  $R_5$  is hydrogen or methyl;

$R_6$  and  $R_7$  together represent a trimethylene group or a tetramethylene group or individually are hydrogen atoms, lower alkyl groups (e.g., 1-8 carbons), phenyl groups, benzyl groups or  $R_6$  is a hydrogen atom and  $R_7$  is a  $-(\text{CH}_2)_p-\text{C}_6\text{H}_4-\text{W}-\text{protein}$  where  $p$  is 0 or 1,  $W$  is  $-\text{NH}-$ ,  $-\text{NHCOCH}_2-$  or  $-\text{NHCS}-$ , protein represents a protein residue;

$n$  is 1, 2 or 3;

$Z$  is an oxygen atom or a sulfur atom or the group  $\text{NCH}_2\text{X}_1$  or  $\text{NCH}_2\text{CH}_2\text{OR}_8$  wherein  $X_1$  is as defined above and  $R_8$  is  $\text{C}_{1-8}$  alkyl;

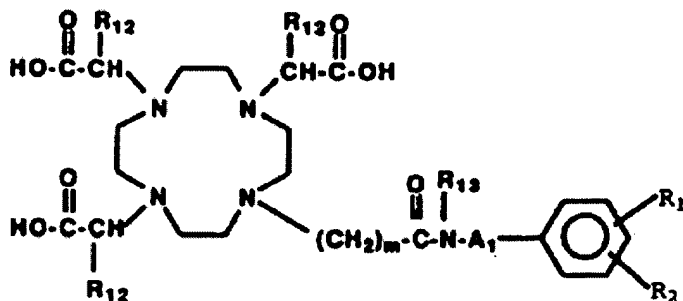
$V$  is  $X_1$  or is  $-\text{CH}_2\text{OH}$ ,  $-\text{CONH}(\text{CH}_2)_r\text{X}_1$  or  $-\text{COB}$ , wherein  $X_1$  is as defined above,  $B$  is a protein or lipid residue,  $r$  is an integer from 1 to 12, or if  $R_5$ ,  $R_6$  and  $R_7$  are each hydrogen; then both  $V$ 's together form the group



where  $X_1$  is as above,  $w$  is 1, 2 or 3, provided that at least two of the substituents  $Y_1$  represent metal ion equivalents of an element with an atomic number of 21 to 29, 42, 44 or 57 to 83; from 1 to 4, advantageously 2 or 3, and preferably 2  $M$ 's are  $-\text{OH}$  and the balance independently are

-OR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub> and/or NR<sub>10</sub>R<sub>10</sub>' wherein R<sub>10</sub> and R<sub>10</sub>' are selected from an organic alkyl radical of up to 18 carbon atoms which may be substituted.

6. (amended) A compound of the formula



wherein

A<sub>1</sub> is -(CH<sub>2</sub>)<sub>m</sub>' - or a single bond;

(CH<sub>2</sub>)<sub>m</sub> and (CH<sub>2</sub>)<sub>m</sub>' may independently be substituted with alkyl or hydroxyalkyl;

R<sub>1</sub> and R<sub>2</sub> are each independently hydrogen,

alkyl, -NO<sub>2</sub>, -NH<sub>2</sub>, -NHC(=S)NHR<sub>12</sub>, -C(=O)NR<sub>3</sub>R<sub>4</sub> and NR<sub>3</sub>COR<sub>9</sub> where R<sub>9</sub> is C<sub>4</sub>-C<sub>18</sub> straight or

branched chain alkyl or hydroxyalkyl, with the proviso that at least one of R<sub>1</sub> and R<sub>2</sub> must be other than hydrogen;

R<sub>3</sub> and R<sub>4</sub> are independently hydrogen, alkyl, arylalkyl, aryl, alkoxy and hydroxyalkyl;

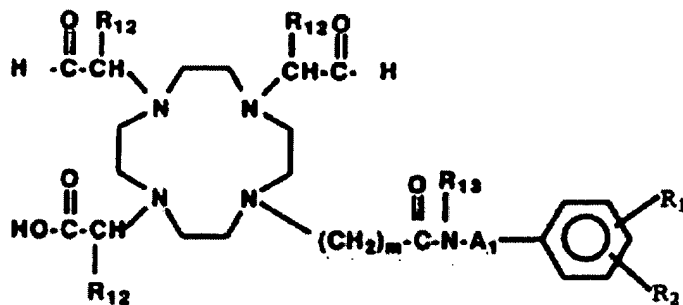
R<sub>12</sub> is hydrogen, alkyl or hydroxyalkyl;

R<sub>13</sub> is hydrogen, alkyl, arylalkyl, aryl, alkoxy or hydroxyalkyl;

m and m' are independently 0 to 5;

and multimeric forms thereof.

11. (amended) A compound of the formula



having the name 10-[2-[[3,5-bis[(2,3-dihydroxypropyl)amino]-carbonyl]phenyl]amino]-2-oxoethyl]-1,4,7,10-tetraazacyclododecane-1,4,7-triacetic acid,

wherein

A<sub>1</sub> is -(CH<sub>2</sub>)<sub>m'</sub> - or a single bond;

(CH<sub>2</sub>)<sub>m</sub> and (CH<sub>2</sub>)<sub>m'</sub> may independently be substituted with alkyl or hydroxyalkyl;

R<sub>1</sub> and R<sub>2</sub> are each independently hydrogen,

alkyl, -NO<sub>2</sub>, -NH<sub>2</sub>, -NHC(=S)NR<sub>12</sub>, -C(=O)NR<sub>3</sub>R<sub>4</sub> and NR<sub>3</sub>C(=O)R<sub>9</sub> where R<sub>9</sub> is C<sub>4</sub>-C<sub>18</sub> straight or

branched chain alkyl or hydroxyalkyl, with the proviso that at least one of R<sub>1</sub> and R<sub>2</sub> must be other than hydrogen;

R<sub>3</sub> and R<sub>4</sub> are independently hydrogen, alkyl, arylalkyl, aryl, alkoxy and hydroxyalkyl;

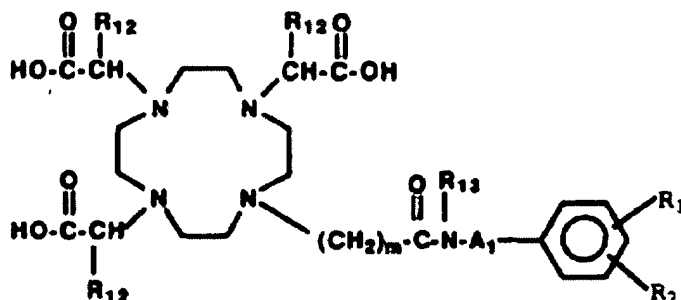
R<sub>12</sub> is hydrogen, alkyl or hydroxyalkyl;

R<sub>13</sub> is hydrogen, alkyl, arylalkyl, aryl, alkoxy or hydroxyalkyl;

m and m' are independently 0 to 5;

and multimeric forms thereof.

39. A complex or a pharmaceutically acceptable salt of a complex, of a metal atom and a metal chelating ligand having the formula



wherein

$A_1$  is  $-(CH_2)_{m'}$ - or a single bond;

$(CH_2)_m$  and  $(CH_2)_{m'}$  may independently be substituted with alkyl or hydroxyalkyl;

$R_1$  and  $R_2$  are each independently hydrogen,

$A^{21}_{c-d}$   
alkyl,  $-NO_2$ ,  $-NH_2$ ,  $-NHC(=S)NR_{12}$ ,  $-C(=O)NR_3R_4$  and  $NR_3COR_9$  where  $R_9$  is  $C_4$ - $C_{18}$  straight or

branched chain alkyl or hydroxyalkyl, with the proviso that at least one of  $R_1$  and  $R_2$  must be other than hydrogen;

$R_3$  and  $R_4$  are independently hydrogen, alkyl, arylalkyl, aryl, alkoxy and hydroxyalkyl;

$R_{12}$  is hydrogen, alkyl or hydroxyalkyl;

$R_{13}$  is hydrogen, alkyl, arylalkyl, aryl, alkoxy or hydroxyalkyl;

$m$  and  $m'$  are independently 0 to 5;

and multimeric forms thereof.